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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/611,329

06/30/2003

Sargur Srihari

RESP:111US

3822

24041

7590

12/13/2006

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EXAMINER

DESIRE, GREGORY M

ART UNIT

PAPER NUMBER

2624

DATE MAILED: 12/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/611,329	<b>Applicant(s)</b> SRIHARI ET AL.	
	<b>Examiner</b> Gregory M. Desire	<b>Art Unit</b> 2624	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-22 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                                   |                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                              | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/20/03</u> . | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Independent claims 1, 5, 18, 19, 21 and 22 recites the mere manipulation of data or an abstract idea, or merely solves a mathematical problem without a limitation to a practical application.

The USPTO "Interim Guidelines for Examination of Patent applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

While abstract ideas, natural phenomena, and laws of nature are not eligible for patenting, method and products employing abstract ideas, natural phenomena, and laws of nature to perform a real-world function may well be. In evaluating whether a claim meets the requirement of section 101, the claim must be considered as a whole to determine whether it is for a particular application of an abstract idea, natural phenomenon, or law of nature, rather than for the abstract idea, natural phenomenon, or law of nature itself.

For claims such excluded subject matter to be eligible, the claim must be for a practical application of the abstract idea, law of nature or natural phenomenon. Diehr, 450 U.S. at 187, 209 USPQ at 8 ("application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection."); Benson, 409 U.S. at 71 175 USPQ at 676 (rejecting formula claim because it "has now substantial practical application").

To satisfy section 101 requirements, the claim must be for a practical application of the Sec. 101 judicial exception, which can be identified in various ways:

The claimed invention "transforms" an article or physical object to a different state or thing.

The claimed invention otherwise produces a useful, concrete and tangible result, based on the factors below.

A practical application exists if the result, of the claimed invention is “useful, concrete and tangible” (with the emphasis on “result”) (Guidelines, section IV.C.2.b). A “useful” result is one that satisfies the utility requirement of section 101, a “concrete” result is one that is “repeatable” or “predictable”, and a “tangible” result is one that is “real” or “real-world”, as opposed to “abstract” (Guidelines, section IV. C.2.b). Claims 1, 5, 18, 19, 21 and 22 merely manipulates data without ever producing a useful, concrete and tangible result. Said independent claims merely manipulate vectors from biometric samples. The claims do not provide useful, concrete or tangible result from the comparisons. Thus merely manipulating data without ever producing a useful, concrete and tangible result. Thus, practical application does not exist in the claims.

In order for the claimed method to produce a “useful, concrete and tangible” result, recitation of one or more of the following elements is suggested:

- The manipulation of data that represents a physical object or activity transformed from outside the computer (MPEP 2106 IVB2 (b) (i)).
- A recitation of a physical transformation outside the method or apparatus, for example in the form of pre or post processing activity (MPEP 2106 IVB2 (b) (i)).
- A direct recitation of a practical application in the technological arts (MPEP 2106 IVB2 (b) (ii)).

Applicant is also advised to provide a written explanation of how and why the claimed invention (either as currently recited or as amended) produces a useful

concrete and tangible result. Claims 2-4, 6-17 and 20 depend on independent claims 1, 5 and 19 respectively. Therefore are also rejected.

3. Claim 21 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 21 is drawn to functional descriptive material recorded on a propagation medium. The specification, at page 45 lines 25-29 defines the claimed propagation medium as encompassing non-statutory subject matter such as signals/carrier waves.

A "signal/carrier wave" embodying functional descriptive material is neither a process nor a product (i.e., a tangible "thing") and therefore does not fall within one of the four statutory classes of 35 USC 101. Rather, "signal" is a form of energy, in absence of any physical structure or tangible material.

Because the full scope of the claim properly read in light of the disclosure encompasses non-statutory subject matter, the claim as a whole is non-statutory. The examiner suggests amending the claim to include the disclosed tangible computer readable media, while at the same time excluding the intangible media such as signals, carrier waves, etc. Any amendment to the claim should commensurate with the corresponding disclosure.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3 and 18-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Clayden (5,787,185).

Regarding claims 1, 18, 19 and 21 Clayden discloses

Comparing a first vector from a first biometric sample with a second vector from a second biometric sample (Note col. 2 lines 55-60 and col. 3 lines 1-11; Black image is first biometric sample and white image is second biometric image, which are converted to a series of vectors. The vectors are compared to obtain a score.), wherein said first and second vectors have at least one biometric feature (note col. 3 lines 3-4 vectors are series of lines of blood vessels).

Regarding claim 3 Clayden discloses,

Wherein clustering of the first vector with the second vector indicates that the first biometric sample and the second biometric sample are from the same source (note col. 3 lines 7-9).

Art Unit: 2624

Regarding claim 20 Clayden discloses,

Wherein the computer readable medium is a CD-ROM (note fig. 2, block 103 and col. 2 lines 34-35, inherent for a processor to include a CD-ROM).

6. Claims 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Grajski et al (6,052,481)

Regarding claim 5 Grajski discloses,

Comparing a first biometric sample with a second biometric sample, wherein said first and second samples form at least one cluster of at least one vector based on feature similarities between said first and second biometric samples (note col. 6 line 60-col. 7 line 10).

Regarding claims 6 and 7 Grajski discloses,

Samples are handwriting samples (note col. 6 lines 60-61).

### ***Conclusion***

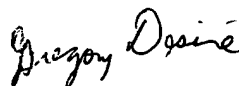
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory M. Desire whose telephone number is (571) 272-7449. The examiner can normally be reached on M-F (6:30-3:00).

Art Unit: 2624

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gregory M. Desire  
Examiner  
Art Unit 2624



G.D.  
December 11, 2006